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English translation

Equipment Handbook for the Parachute-System
Omega with Quick



Manufacturer:

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1 Foreword

This Equipment Handbook applies to the parachute system Omega/Quick of the firm Performance Variable, Am Tower 16, 54634 Bitburg.

It describes the harness-container and the parachute as well as the operation, packing and maintenance instructions. It is the duty of the user to make himself well versed in the contents of this handbook before using the parachute system and to strictly adhere to the instructions contained within this handbook in the use of the parachute system. Because the described parachute system contains a reserve parachute with steering and braking capabilities, we strongly recommend that the user obtain a thorough theoretical and practical briefing in dealing with this equipment from the manufacturer. In this way the user would guarantee himself the optimal functional safety as well as a long life expectancy for the parachute. In addition, with his proper behavior, he contributes to the avoidance of accidents, which in the least spares him and the general public annoyance and damage.

General Data:

Classification: JTSO-Authorisation c23d according AS 8015 B

Related Documents:

Authorised Release Certificate „Form 1“

Packing Data Card (Checking book of the last Reserve packing Date)

Equipment Handbook

2 Description of the Container System

Typ of container	Main- and Reserve Container
Number of Reserve Container Flaps	6
Reserve Pilotchute	Spring loaded, Inside
Manufacture	Performance Variable, germany
Reserve opening Device	Cypres setup included
Harness Material	Typ 7 and Typ 8
Hardware	Mil-Spec/PIA-Spec

3 Description of the Reserve Parachute

Type of Parachute	Ram Air Square Reserve Parachute
Number of Cells	7
Construction Technique	I-Beam Cord-Wise
Manufacture	Performance Variable, germany
Suspension Line Connectors	Stainless-steel Rapid Links
Canopy Fabric	Nylon F-111
Suspension Lines	Spectra - Micro-Lines

4 Technical Data Reserve Parachute

Typ	Size (sq.ft.)	Span. (ft.)	Cord. (ft.)	Volum (cu.in.)	Weight (lbs)	Max. Exit weight (lbs)	Lines Spectra
Quick 120	120	16,40	7,28	199	4,5	117	725
Quick 135	135	17,38	7,74	224	4,7	136	725
Quick 150	150	18,37	8,14	249	5,3	154	725
Quick 180	180	20,14	8,96	338	6,2	181	725
Quick 220	220	22,08	9,81	364	7,3	220	725

Line-Trimming

	Quick 120	Quick 135	Quick 150	Quick 180	Quick 220
A/B	7,0	7,0	8,0	8,0	9,0
B/C	13,0	14,0	15,0	16,0	18,0
C/D	17,0	18,0	18,0	20,0	22,0
Caskade	102,0	110,0	114,0	125,5	140,0
Steeringl.	170/80	180/75	187/57,0	203/58,5	211/69,0

5 System Operating Data

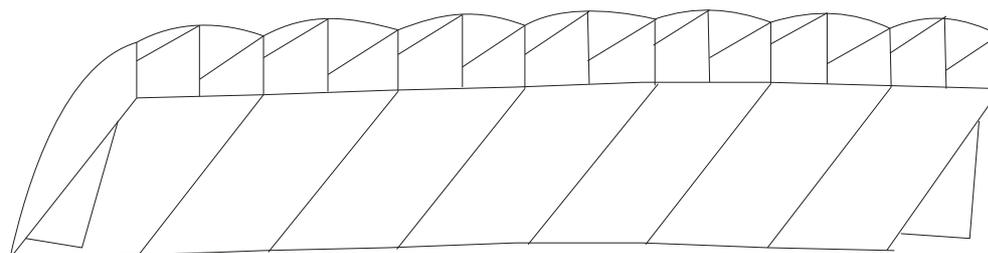
Weight:	ca. 7-15 Kg (15-22 lbs)
Max. Load:	see Technical Data Reserve Parachute
Max. Deployment Speed:	130 KEAS, 240 Km/h
Max. Reserve Repack Cycle:	365 Days
Allowable Service Life:	15 Years

6 System Parts

Harness/Container
 Spring loaded Pilotchute with Bridle
 Reserve Bag (Freebag)
 Main Parachute Bag (POD)
 Main- and Reserve Parachute
 Cut away Handle, Reserve Handle
 Main Risers, Hand deploy with Bridle

7 Parachute

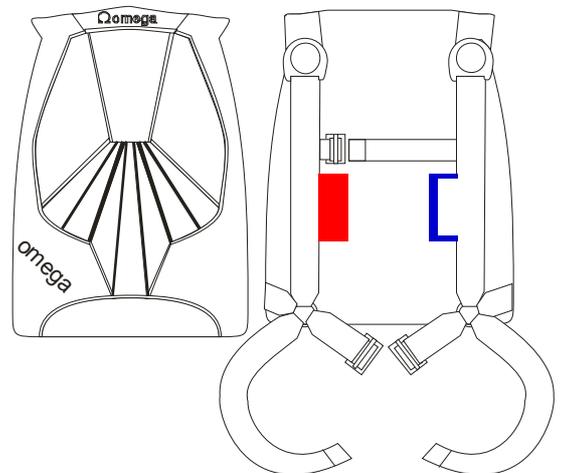
7 Cell ram air square Parachute made of F111 fabric in I-Beam/Cordwise Construction.



8 Harness and Container

The container of Cordura, Parapack fabric is integrated in the harness of Typ 7+8 Milspec webbing. The container is closed by a metal pin for a manual deployment. The harness is equipped with a 3-point closure and has an adjustable chest strap as well as adjustable leg straps. The attachment to the reserve parachute takes place at the suspension-line connector links and the integrated reserve risers. The main parachute is attached by means of the suspension-line connector links and main risers to the largest ring of the 3-ring release system.

Cut away handle
Reserve handle



9 Maintenance Instructions

Reserve parachutes must be opened, aired, inspected and repacked at the latest every 365 days. In extremely hot and humid climates, an essentially shorter pack cycle is recommended. The main parachute must be inspected after 120 days or 50 jumps what ever comes first. After 120 days or 50 jumps you should replace all rubberbands. (Packing instructions Omega main container)

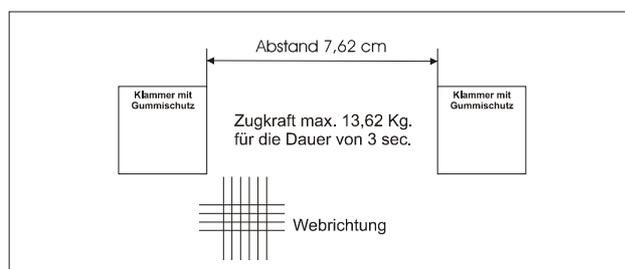
Fabric testing should be done annually (at the appropriate repack cycle) it is not necessary to test a canopy before it is within one year after the date of manufacture. When the fabric is tested note this on the packing datacard. Use commercially available 1 inch (2,54 cm) fabric testing clamps with rubber faced jaws and appropriate scale. The scale should be calibrated once per year and be accurate within 1 lbs (0.4535 kg).

Three fabric pull tests should be performed on a canopy:

- One on the left end cell top surface
- One on the center cell top surface near trailing edge
- One on the right end cell top surface



This test should never be done where any part of the fabric involved in the test is within 3 inches (7,62 cm) of any seam or data panel. The test should be done chord-wise. An additional test must be performed on any stained or discolored areas. Lock the clamps securely avoid slippage. Mark the tested area with parachute ink. Note the passed or failed fabric test in the packing datacard.



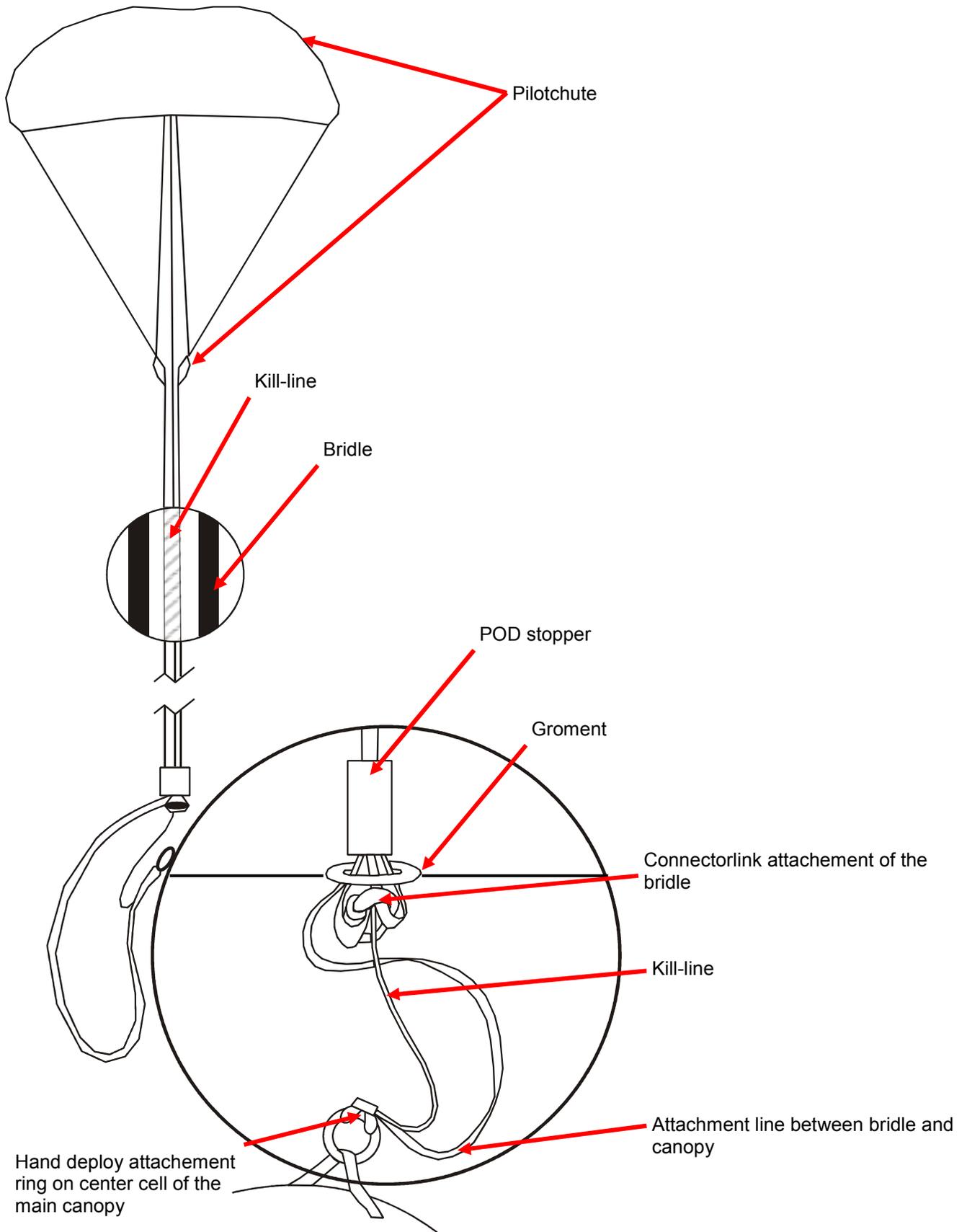
More Maintenance Instructions see:	
Page 33	Packgummis
Page 10	Drei Ring System, Trennvorrichtung
Page 11	Aufbewahrung und Lagerung

9.1 Assembly

The parachute system may only be assembled by the manufacturer or an certified person. Before assembly, the parachute system should be checked to confirm that it is in a ready-for-use condition. The system may only be assembled in accordance with the harness-container manufacturer's Equipment Handbook.



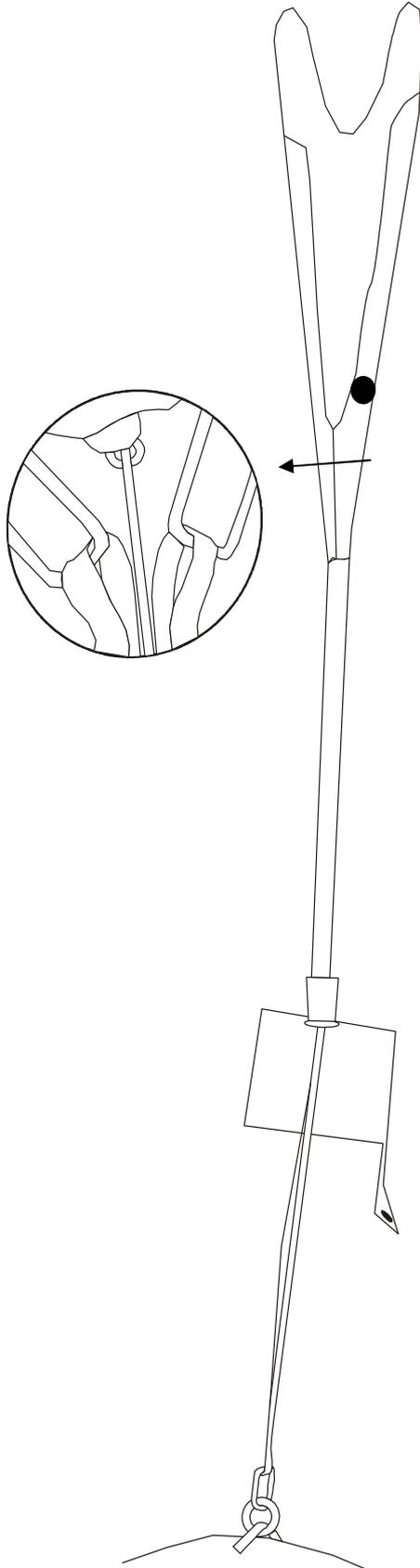
The hand deployment with kill-line:





The hand deployment with kill-line:

Cock the hand deploy after jump bevor packing the main canopy.



After the main canopy be open the hand deploy will collaps. The handle an the top surface of the hand deploy is pulled inside by the kill-line.

It reduce the air drag and the canopy performance is better.

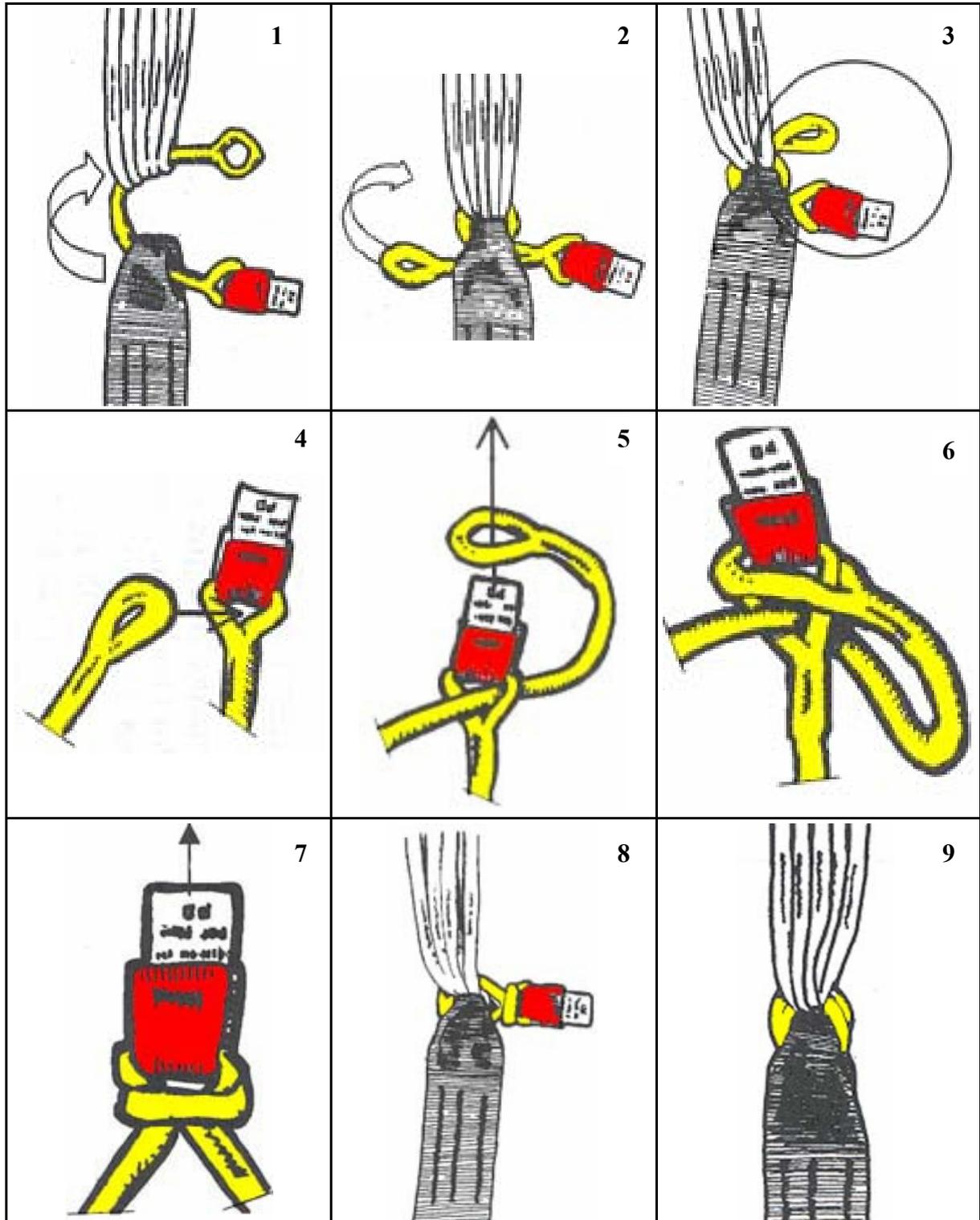
Bevor packing the main canopy the hand deploy must be cocked. Grap the handle and pull the kill-line all the way out. There must be a marking on the kill-line. Check the pilotchute after you cocked it and after you put the main bag in the container through the check window in the bridle.





How to mount Soft Links to your canopy:

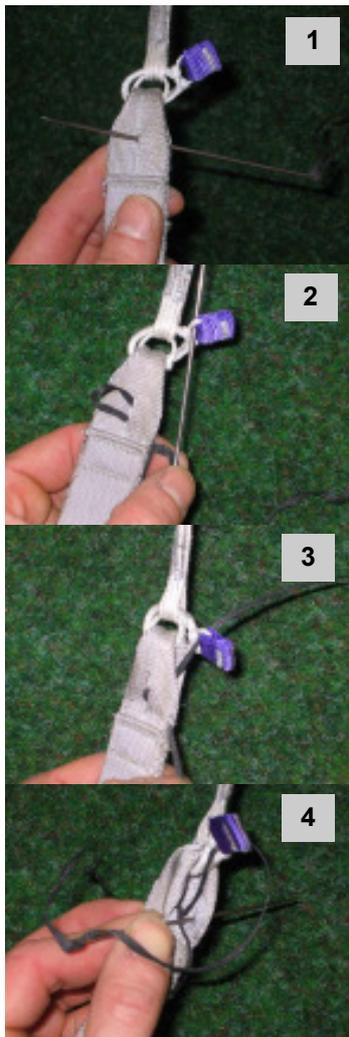
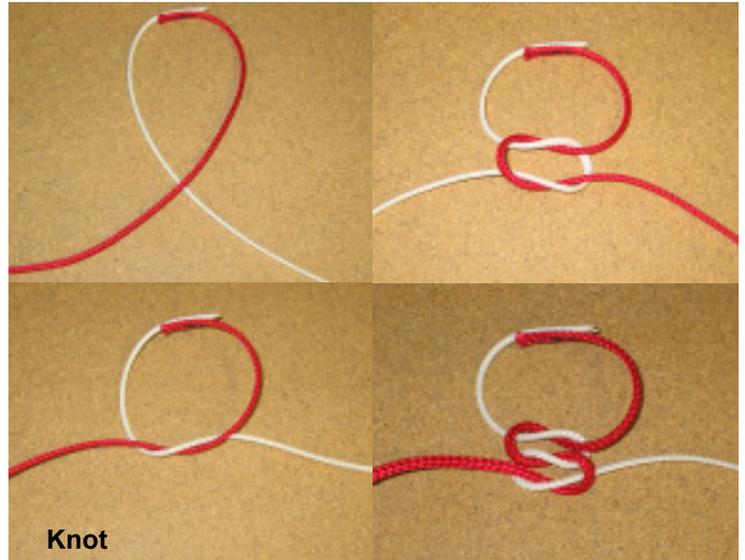
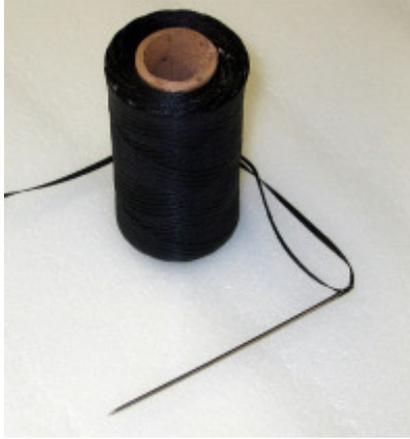
Performance Designs Soft Links ©



It is important that the softlinks will stay in the right position. They should not turn out of the riser (like in picture 8). The red marked stopper must remain inside the riser. If the stopper is out of the riser it is possible to get caught a line. This can cause a malfunction on the main canopy. To avoid that it is possible to fix the softlink to the riser. (Use supertack 80-90 lbs. MIL-T-43435 or 50 lbs. MIL-T-43435) .

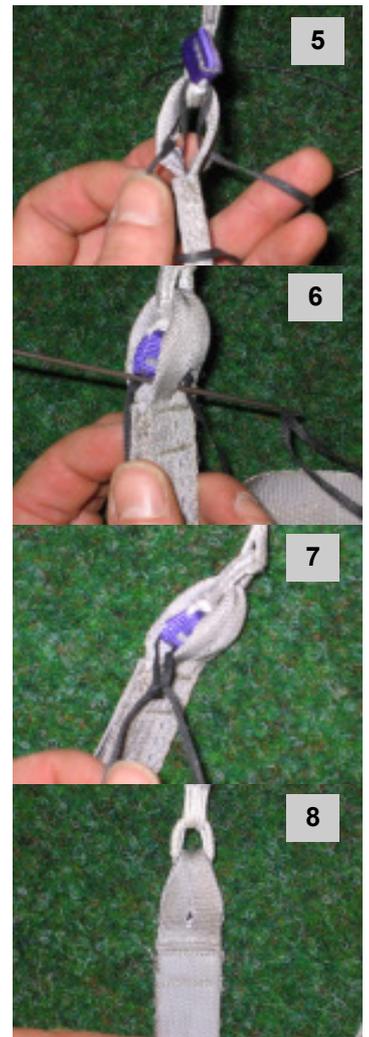


How to use Supertack to fix softlinks:



Fix a Softlink:

Start from inbetween to have the knot, when finished, inside the riser.



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9.2 Periodic Inspection Instructions

The main parachute canopy and the container system should be thoroughly examined every 50 jumps or every 120 days after assembly, whichever comes first.

This examination is considerably more detailed than the inspection that is to be carried out each time the parachute is packed.

Every 365 days the reserve parachute must be opened, aired and thoroughly inspected before it is re-packed by a rigger or equivalent specialist.

The inspection can be carried out according to the following directions.

The container should be examined in place that is clean, dry, well lighted and large enough that the parachute can be completely laid out.

The following inspection sequence is systematic and meaningful:

1. Pilot Chute, Bridle and POD/Bag

Check the pilot chute and bridle for orderly attachment on the top surface of the canopy, as well as for damage. The parachute fabric and the reinforcement tapes, as well as their stitching, should not be damaged. Check the functioning of the pilot chute kill-line. The grommets on the bag, including the grommet on the bottom of the bag, should be undamaged, without sharp edges and firmly attached to the bag material. Replace old stowing rubber bands as necessary.

2. Main Risers

The main risers should not show damage in the material or on the grommets or rings. Check the functionality of the Velcro attachment of the toggles. Soiled Velcro should be cleaned.

3. 3-Ring System

The 3-ring system must be perfect, the rings must be round and undamaged. The closing loop must show no damage. The 3-ring system must open with the lightest pull, as soon as the cable is removed. The riser get's hard after a couple of jumps and may not release the 3-ring system. To avoid that, twist the main riser with the 3-ring system after 120 day's to keep the strap in a flexible condition.

4. Release Device

It should be checked that the cables move freely in the housings. The cables should be cleaned completely after 120 day's. Use a clean paper towel with silicon oil or some other lubricant. Wipe the cables 3 times that all black arrears are cleaned. Check that the yellow coding is free of damages. There should stay a light oil film. Not to much! Otherwise the oil collects the dirt and the cables get sticky to soon. The Velcro fastening must be perfect and mate well. The reserve ripcord cable must also be freely in the housing.

5. Harness, Hardware and their Stitching

An examination of the harness, hardware and their stitching can only be carried out visually. Pay attention that the yellow signature thread running along the outside of the type-7 webbing is not damaged and that the stitching is not broken. All metal parts must be free of corrosion and should move freely as designed.

6. Container Material

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Examine the container for possible tears, rips or fabric separation. The grommets especially should not show sharp edges or evidence that the fabric is torn away. The loop must be in perfect condition. It is preferable to replace the loop too early rather than too late. The inside of the container must be clean.

**Should something unusual turn up during this inspection,
 an certified person should definitely
 be contacted for a more exacting examination and opinion.
 When in doubt—safety first!**

9.3 Maintenance and Storage

The system should always be kept dry (45-70% relative humidity) and cool (10-15° Celsius, 50-60° Fahrenheit), in a container through which light will not pass. Ultraviolet light can cause invisible damage to the fabric through the deterioration of the nylon fibers. The parachute canopies and container should be kept away from all types of corrosive substances such as lye, acids, fuels, varnishes and solvents. Also storage in areas with running electrical motors (O³ - Ozone forming) should be avoided.

Parachute canopies should be opened no later than 12 months after being packed, to air, check and re-pack. In extremely hot and humid climates, an essentially shorter pack cycle is recommended.

9.4 Cleaning

Basically the container should only be cleaned with fresh water. The use of brushes or rough sponges should be avoided.

After contact with salt water, the container should be rinsed with fresh water at least three times within the first 24 hours.

The removal of oil, tar or similar substances should be discussed with the manufacturer. The equipment should not be cleaned in a washing machine.

Only dry the container by hanging it in the shade.

After cleaning the container should be re-inspected.

9.5 Alteration and Replacement

Should repairs be necessary, they should be performed by the manufacturer.

Alterations or modifications may only be carried out by the manufacturer or with his agreement. Only official replacement parts or those approved by the manufacturer may be used.

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Pre-inspection Each Time Before the Parachute is Packed

The parachute system should be inspected according to the manufacturer's instructions. Stretch the harness-container and the main canopy out on the ground so that the suspension lines are pulled tight. Check that the lines are straight and untangled and that the slider is not damaged.

9.6 Periodic Inspection Instructions, Parachute

The following inspection sequence is systematic and meaningful:

1. Canopy Top Surface

Spread the canopy out completely. Pay attention to all stitching, possible tears, burns and rips or fabric separation.

2. Canopy Bottom Surface

Turn the canopy over and check it in the same way in which the top surface was inspected. Pay special attention to the suspension-line attachments.

3. Canopy Ribs

Each rib should be examined from nose to tail. This involves looking carefully and thoroughly in each cell. Give special attention to the reinforcement tapes, the suspension-line attachment points and the bridle (to the pilot chute) attachment points. Also check whether the cross-ports are frayed.

4. Canopy Exterior

Lay the canopy out on the side so that the cells lay on top of each other. Inspect the condition of the stabilizers and slider stops.

5. Suspension Lines

Inspect the entire length of the lines for damage. Pay special attention to the cascades and where each line attaches to the connector link. Check whether the connector links are tightly fastened and whether Soft-Links show any sign of damage.

6. Slider

The slider should be inspected for damage to the fabric, the reinforcement tapes and the stitching. The grommets should not have any sharp edges and should be securely attached to the slider.

7. Steering Lines

Check that the steering lines run orderly through the slider and also through the small ring of the main riser and are correctly attached to the steering toggle. If the steering lines are twisted, they should be turned in the opposite direction.

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10 Packing the Parachute

10.1 Packing Instructions

Pack Cycle: On the condition that the parachute is in accordance with the regulations and has been handled corresponding to the instructions contained in this Equipment Handbook, the maximum allowable pack cycle is 365 days. Upon expiration of this time, the use of the parachute system without a new packing is not allowed. With a longer interruption of use, it is recommended that the parachute system not be stored in a packed condition according to the manufacturer's instructions. Ram-air parachutes of the most recent design are very reliable parachutes. As long as a parachute is packed with untangled and straight lines, it will usually open. However, in order to experience consistently good and soft openings that protect the material, we recommend the packing method represented on the following pages. The parachute should be carefully packed in the same way after each jump or at each re-pack. Part of this is to pay attention that the place where the parachute is packed is clean and not in direct sunlight. Ultraviolet rays irreversibly damage nylon parachute fabric. Fundamentally, reserve parachutes should only be packed in closed rooms on carpeting or a similar surface. Packing on concrete or asphalt should be avoided, since the rough surface could damage the fabric, lines and hardware.

Note: Reserve parachutes may only be packed by people who possess a valid packing license for this type of parachute.

Before beginning the packing process, the packer should be satisfied that the parachute:

1. Is in a reliably operating and airworthy condition.
2. Is not due for a re-inspection.

Should there be questions or uncertainty, get in direct contact with the manufacturer.

The packing of the parachute is definitely to be carried out according to the following directions.

In order to be able to pack the reserve, as a prerequisite, the packer must be familiar with the basic concepts of the pro-packing method.

The following aids are absolutely necessary to pack or at least very highly recommended: Wooden packing stick, packing plate, temporary packing pin with warning flag, Cypres loop material, pull-up cord, locking pull-up cord for freebag, Velcro protecting strips und packing data card.

The harness-container and the parachute are laid out so that the reserve flaps of the container are facing up. It is advisable to weight down the container so that it doesn't slide so easily during packing.

The following preparatory work should be carried out: Set the brakes. Fasten the connector links together with a pull-up cord. Inspect the AAD (automatic opening device) for possible servicing or battery change. Check the reserve container for dirt or damage. Prepare a new loop of the right material (Check users manual of the AAD for the right material. And 20% shorter than the old loop, since the new loop material stretches).



The OMEGA Container does have an Automatic Activation Device Setup as standard.

10.2 Length of the closing Loops,

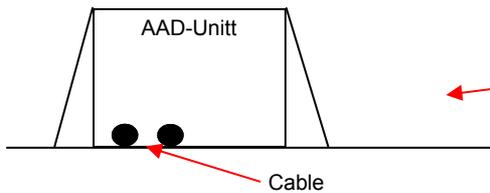
Max. Length from Disc to end of the Loop.



Container Size:	XXS	XS	SS	S	M	L	XL
Reserve Loop:	11,5 cm	12 cm	12 cm				
Main Container Loop:	4 cm	4 cm	4 cm				

10.3 Installation of an AAD

The AAD can be easily pushed into the pouch inside the Reservecontainer. The cabel attachment must face to the wall between the reserve- and maincontainer!



Cutter guiding fabric tupe.

Elastic cutter attachment.



Put the control unit of the AAD inside the pocket with the window in the back pad.

Guiding fabric tube for the control unit cable.





10.3 Installation of an AAD

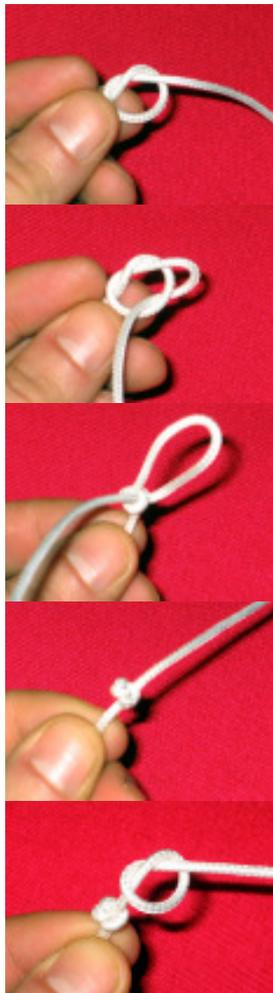
The extra length of the cables should be rolled gently that it fits that small pocket next to the elastic AAD pouch.

Routing of the control unit cable out of the cable pocket.

Routing the cutter cable out of the cable pocket.

No extra length of the cables should be outside the pocket!

Routing of the loop through the loop disc's.
Follow the pictures in the middle to build the special knot to secure the loop stay's in place.





10.4 Packing Procedures Reserve Parachute

We would like to illustrate the packing method with the following pictures:

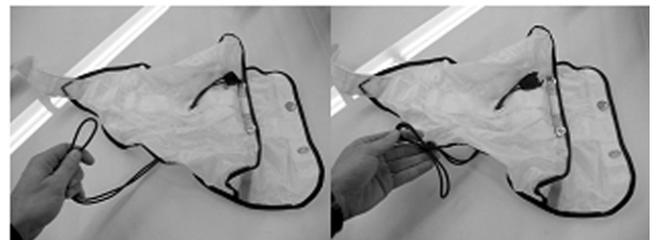
After checking that the lines and canopy are straight, set the brakes. And fix the risers together.

Grasp the front and back suspensionline groups between your fingers and separate them as shown. Walk forward towards the canopy and push the completely spread out slider in front of you, to the stops on the stabilizers.

Pay attention that there are no twists, lines over or lines through each other in the left or right line groups. All lines must run straight through the slider to the canopy. If this is not the case, the line groups must be disentangled.

Be shure you prepared the Freebag with an extra packing cord to pull through the pulpcord when the canopy is in the freebag.

When you reach the stabilizers with both hands, separate the line groups as far as the slider allows and vigorously shake the canopy a few times. Now step out from between the line groups to one side and transfer the line groups to one hand.





The canopy nose should face the rig. Next find all the cell openings. Start at one outside end. Pull each supporting and non-supporting cell wall out and hold it in your hand. Make sure that no cell has been overlooked or lost.

You have now folded the entire leading edge. Hold these cells firmly between your knees while you continue packing.

Grasp the slider from above between the A and B lines of the canopy and fold the fabric to the side.

Do the same thing between the B and C lines. Repeat this process on the other side of the canopy.





Follow the D-lines of one side with your hand, pull them lightly out and lay them toward the center of the canopy, so that likewise between the C and D lines an S-fold is formed. Repeat this process on the other side.

Now grasp the steering lines of one side at the attachment to the canopy and pull these with the steering edge out of the canopy. Lay the steering edge in S-folds towards the middle. Repeat this process on the other side.

Now lay the canopy carefully on the ground. Watch out that the canopy stays bundled together and does not come apart, that the lines inside the canopy remain centered and the suspension lines are taut to the rig.

Now the entire canopy is once again sorted. All of the fabric should be placed to the side and the outer three cell openings separated.

Position the S-fold of the A/B lines on top. Make sure that it is as smooth and even as possible.

Now the S-fold of the B/C lines should be positioned and the S-fold of the C/D lines on top of it. Check that the lines inside the canopy remain centered and taut.





Place the steering lines in individual S-folds one on top of the other until the middle cell is on top. Repeat the corresponding steps on the other side.

The slider should be pulled into the canopy so it resembles the shape of a star, watching out that the slider grommets lay directly against the slider stops. The stabilizers should be individually flaked out to each side.

Now use one hand to grasp under the suspension lines at the base of the canopy and make a short S-fold.

Spread out the middle cell so that it completely covers the canopy. Secure the bundle with both knees.





Tuck the sides of the canopy in to the width of the freebag and simultaneously squeeze the air out of the canopy. Pay attention that the separated cell openings remain separated.

Place the freebag next to the canopy because you will need it and it should be reachable.

From underneath the canopy, make a second S-fold and lay it on top of the first.

Constantly secure everything with one hand, so that it does not slide apart.

Because the ram-air reserve freebag has a closing loop on a vertical center line, it is necessary to split the canopy in the middle. The stitching of the center cell should be followed to the cell opening. Pull the opening of the middle cell so wide apart from the canopy fabric that it lays open and free.

Gather together the material of the center cell and push it into a second S-fold. Only the cell opening of the middle cell remains free. In this way it creates two "horns."





Sichern Sie alles ständig mit einer Hand, damit es Ihnen nicht wieder auseinander-rutscht.

Now somewhat gather together the material of the "horns" in order to get them into the freebag more easily. First begin on one side to fit the canopy into the freebag, then the other side.

It is highly advisable to pack relatively small "horns" with the least possible fabric.

Because the Omega freebag has a closing loop on a vertical center without a rib, what will later be the loop channel must in any case be kept free with a locking pull-up cord or similar device.

Make sure that the canopy fabric looks neat.

Close the freebag with the running loop of the shock-cord "Safety-Stow."





Loop the suspension lines in the line bag at the bottom of the freebag. Use Velcro-protecting strips so that the lines do not catch on the Velcro of the freebag.

Attention should be given that the connector links of the reserve risers lay beside each other and the toggles face the bottom of the container.

The freebag should be placed in the container with the lines at the bottom and the loop should be fed through.

The bottom flap (1) is closed first. The Cypres cutter is on this flap. If a Cypres is installed, the closing loop must absolutely be pulled through the cutter.





Carefully stuff the top part of the freebag into the container.



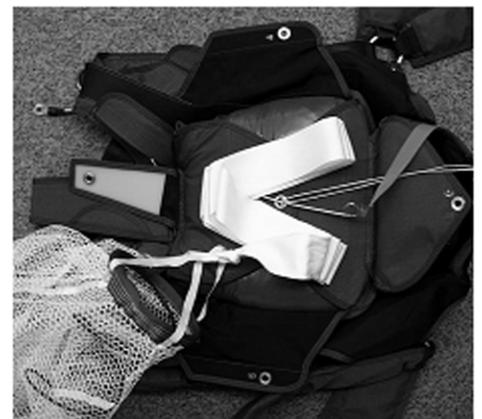
The pilot-chute bridle of the freebag should be folded under the second flap (2) in 5 to 6 medium-size S-folds.



Close the second flap. There should be at least 2 meters (about 6-1/2 feet) of extra bridle remaining unstowed.



The leftover bridle should be S-folded in a "V" shape on top of the first two flaps.



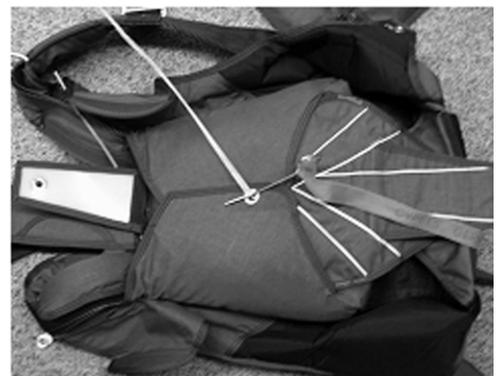


The pilot chute should be centered and secured by means of a temporary packing pin. Make sure that no fabric is caught in the spring of the pilot chute.

Carefully tuck the pilot chute fabric under the edge of the cap and close the striped flap (3).

First close the right-side flap.

....and then the left.



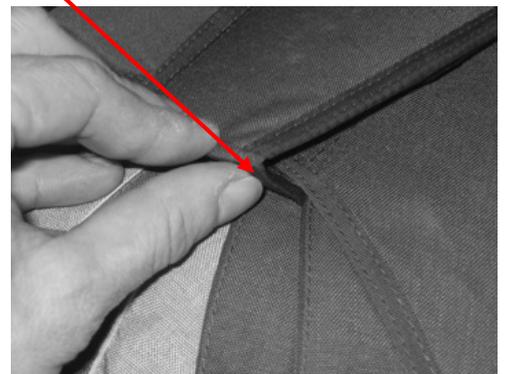
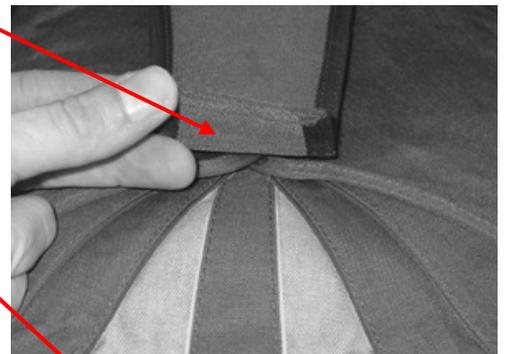
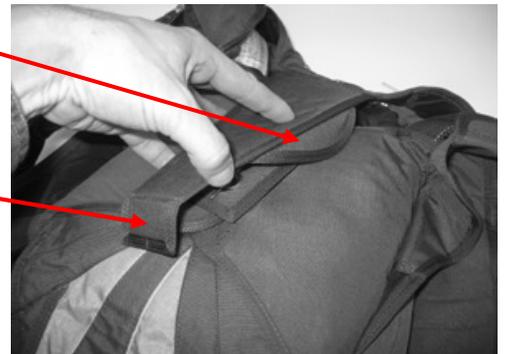


Finally close the top flap (6) with the reserve pin.

The top-most flap should be closed after the rigger has sealed the reserve with the red safety tie.

Nudge the side tuck-in flaps under flap 6 and the bottom part of the closing flap under flaps 4 and 5.

The complet packed Reserve Container should look like this.





11 Packing Instructions Omega Main Container

We would like to describe how to pack the Main Parachute in the Main Container of our Omega Container-System.

Even if you follow all instruction and you packed all parachutes well it is possible that parachutes will not open probably! If you follow all instruction well you minimize the risk to a malfunction!

The Instructions written in chapter 9.1 up to 10.2 obtain to the Main Parachute as well.

The Parachute System should only be packed in a dry, clean and protected from sunlight area. Raw surfaces can damage the material. A packing mat is needed to protect the equipment for damages, dust, dirt, water etc.

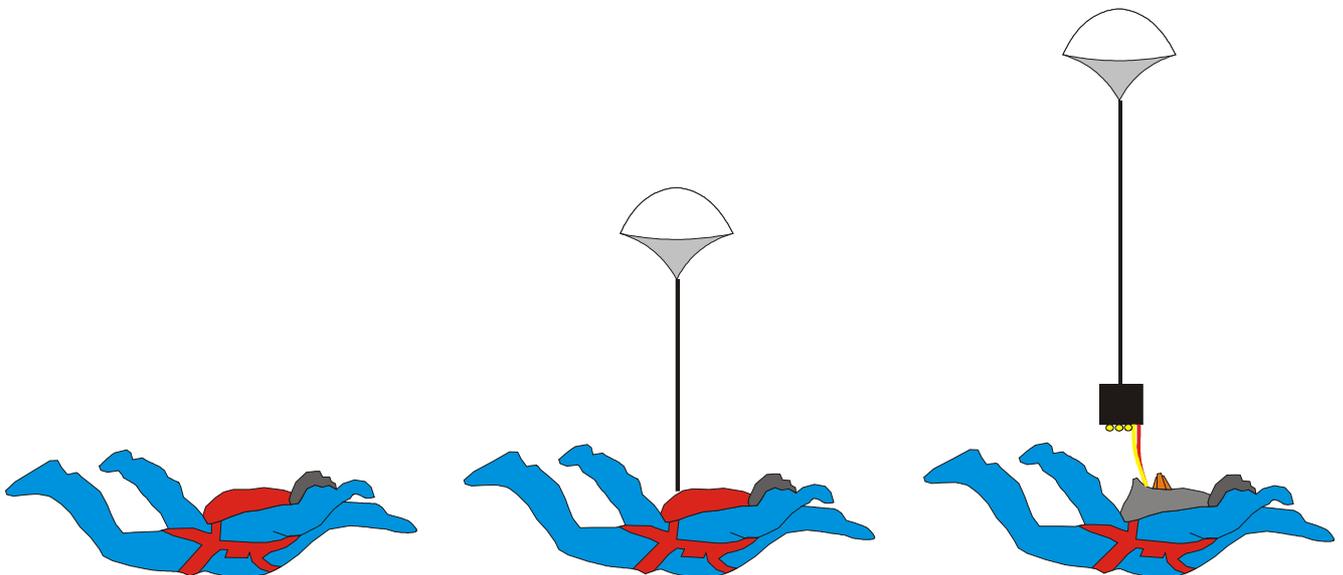
All alteration, maintenance, repair and packing of the Reserve Parachute must be performed by the manufacture or a certified person.

Use only original spare parts from Performance Variable.

We recommend an instruction about the operation and use of the Parachute System, given by the manufacture.

To ensure safety during the operation of the Parachute System it must be opened in a adequate altitude and stable body position. The stable body position must maintain during the opening of the parachute.

See drawings:



Horizont



Visual Control of the 3-Ring Release System.

Rings and Loop must be undamaged. The configuration of each part must look like the picture.



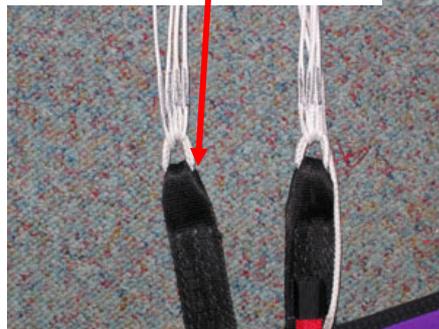
Lay down the System bevor packing.

Lay down the Parachute System on an adequate mat.
Fix it with at the risers that it won't slide while packing.



Softlinks:

Softlinks when used must be undamaged.
The Softlink stopper must remain inside the riser to avoid line entanglement.
Check the lines for damages.
How to assemble softlinks right check the chapter Assembly.





Connectorlinks:

Use only stainless steel size 4, 280 Kg with soft Slider-bumpers.

Check the screw if it is tightened.

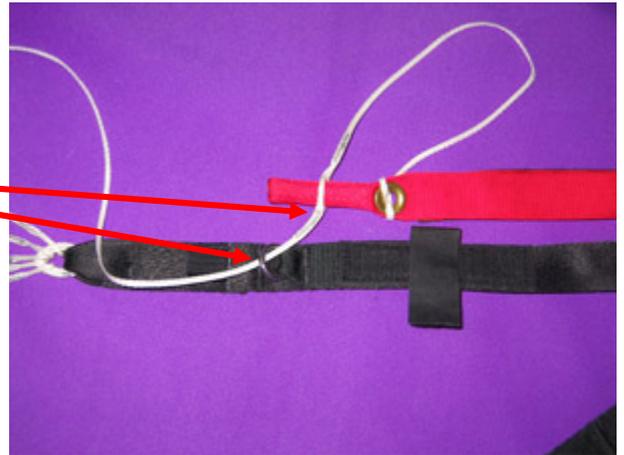
Check also the lines for damages.



Setting the Brakes:

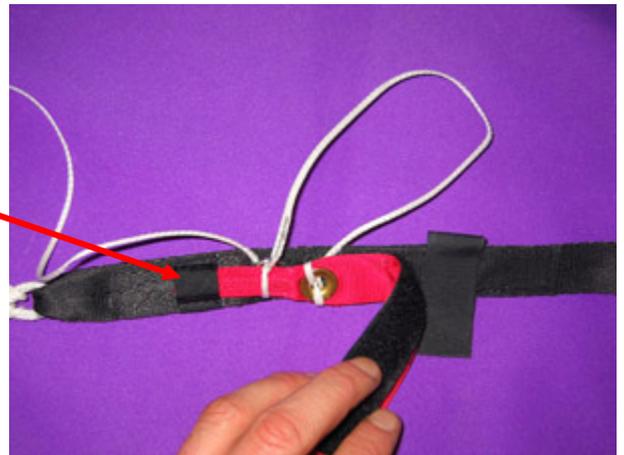
The steering lines must be not twisted bevor they will be set again by packing.

Push the toggle thru the brake loop in the steering
Die Steuerschlaufe wird durch das Auge in der Steuerleine hinter dem Führungsring gesteckt.



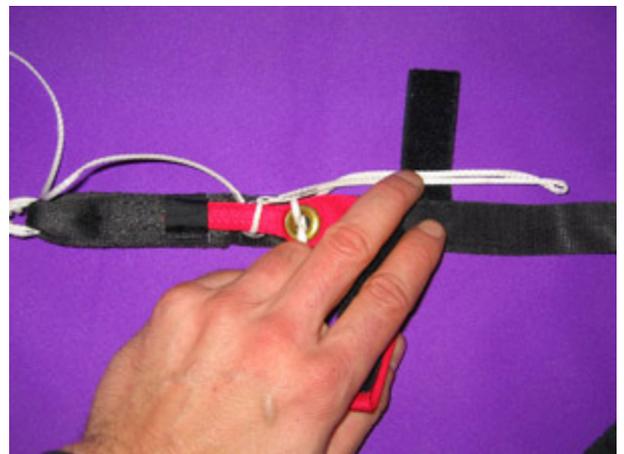
Setting the Brakes:

Push the toggle in the pocket and secure it with the velcro fastener only half.



Vorbremmung:

The lower steering line part must be fixed with the velcro fastener on the side of the main riser.





Setting the Brakes:

Secure now the full velcro fastener of the toggle.

If the velcro does not fix the toggle any more it must be exchanged.

If one toggle drops down during the opening it can cause in a malfunction of the main parachute.



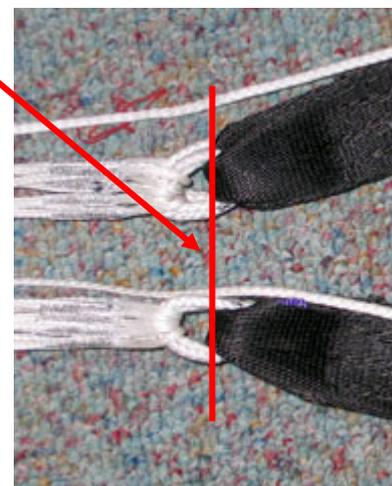
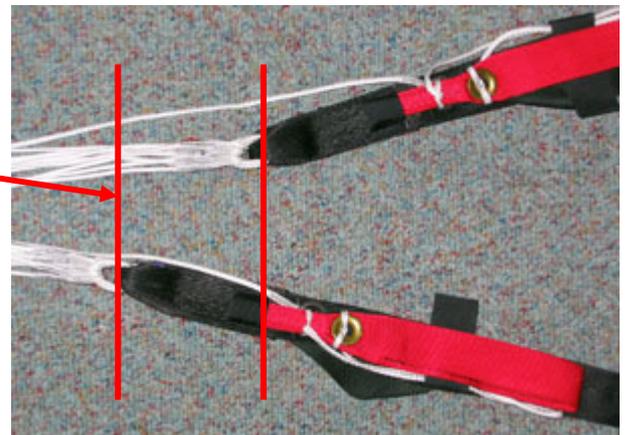
Setting the Brakes:

Here you can see a proper fixed toggle.



Linen Group Balance:

By packing the parachute it is important to keep the main risers in the same length this avoids a spinning opening or a malfunction.





Collapsible Slider:

The collapsible Slider must be checked before each packing of the main parachute. The hooks on the pull string, which keeping the slider together must be released and pulled inside the guiding tubes. Jumping with a collapsed Slider can damage the equipment and can cause bodily injury of the jumper.



Collapsible Slider:

The hook on the pull string.



Slider stretched out completely:

Before packing the slider must look like this..



Grabbing the main risers:

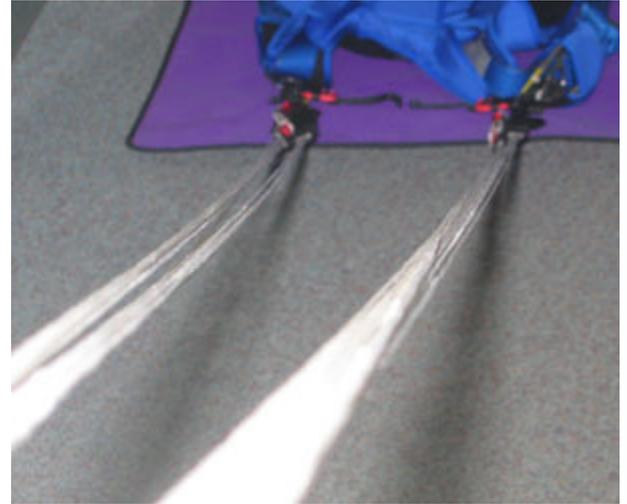
Take each riser and the steering line separated between your fingers to check the free routing of the lines. Move upwards to the canopy with the lines separated in your fingers.





Checking the lines:

All lines must be without any damages, clean and dry.
All lines must be under tension during the packing procedure. There should be no excess length of the lines.



Checking the lines:

Check the free routing of the lines through the slider up to the line attachment points at the bottom of the canopy.



Flaking the canopy:

Follow the instruction of the main canopy manufacture.





Basics how to pack a main parachute:

All cells of the parachute must be put together in the middle. The slider must be in the highest position in between the canopy.

We recommend a Pro Pack Method.

Detailed informations how to pack the main parachute please check the Owners Manual.



Lay down the main parachute:

Lay down the finished pack job gently on the ground.

Never throw it down, the lines can get misrouted!

The lines must stay all time under tension



Backup the collapsible pilotchute:

Pull at the handle so long that the kill-line inside the bridle move out again. There should no white line remain inside the bag. In the check window next to the curved pin should appear a marking.

The black tape of the bridle attachment should never ent-angle with the kill-line.





Bag attachment:

The bag is attached to the bridle with a connector size 4.
The connector must be placed right and tightened well.



Rubber bands:

Use only rubber bands like show in the picture.

Small size: 1 1/4 x 3/8 inch, (Spectra <= 725)

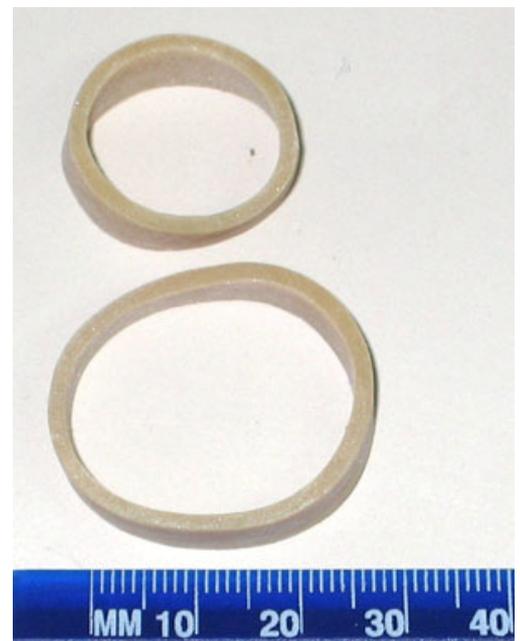
Big size: 1 1/2 x 3/8 inch, (Spectra > 725, Dacron)

Use only big rubberbands for main parachutes with Dacron lines..

As soon the rubber bands worn down or after 50 jumps, latest after 120 days you have to exchange all rubber bands. Also if you store the packed Parachute System the rubber bands worn down, gets tired and brashly.

It is important that the rubber bands release the lines not less than under a tension of 6 Kg.

To see if the rubberbands are strong enough you should be able to lift the bag while pulling at a stowed line bundle.





Folding the parachute:

Push the parachute together that it is as wide as the bag.
Then do the first S-Fold.



Folding the parachute:

The second S-Fold on top of the first.



Folding the parachute:

Push the folded parachute into the bag.



Closing of the bag:

Pull the rubber bands through the brass grommets and
close the bag with the line bundle.
The length of the rubber band stowed line bundle
should be min. 4 up to max. 5 cm.





Attach the lines:

Fix the line bundle in turns with the rubber bands.
The lines must be straight and there should be no excess length of a line.



Attach the lines:

At the end there should be only a rest of the line bundle of max. 40 cm.



Putting in the bag:

Remove the attachment of the packing mat.



Putting in the bag:

Put the main riser straight on each other.
Open all flaps of the main container that makes it easy to lay in the bag.





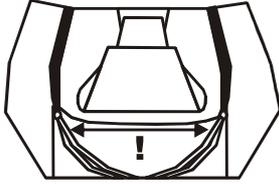
Putting in the bag:

Put in the main risers straight between the riser covers into the container. One on the right and one on the left side next to the reserve container.

Lay down the lines straight as a bundle on the bottom of the container.

WARNING! ACHTUNG!
Vermeidung von Fehlöffnungen!
To avoid malfunction!

Überlänge der Fangleinen vom letzten Gummi bis zu den Verbindungsstücken maximal: **40 cm**
Max. Line length from the last rubberband to link: **40 cm**



Haupttragegurte immer gerade in den Hauptcontainer einlegen. Die Überlänge gerade auf den Containerboden legen. Niemals die Leinen in Schlaufen legen.

Place mainriser always straight into maincontainer. Put the lines always straight on the bottom of the maincontainer. Never lay them down in curves / loops or twist them.



Putting in the bag:

Put the bag on top of the line bundles on the bottom of the container.

Attention! No line should move over a rubber band fixed line bundle! That can cause a malfunction!



Putting in the bag:

Turn the bag slightly towards the reserve container and then press the bag flat into the container.





Closing the container:

Use a pull up cord to route the loop of flap no. 1 through flap no. 2.

No fabric should be between the flaps. The bridle must be routed to the right side under flap no. 2.



Closing the container:

Fold back the bridle on top of flap no. 2 and close flap no. 3.



Closing the container:

Close flap no. 4.





Closing the container:

Close the container with the cirved pin on the bridle. In the check window should the marking of the kill-line be visible. No extra length of the bridle should be under a flap. A small fold in the bridle makes it easier for the pilot-chute to pull out the pin.



Closing the container:

Push the bridle between flap no. 2 and 3. Route it under flap no. 3 to the right corner of the container.



Closing the container:

Push the last flap of the main container between flap no. 1 and 2.



Closing the container:

Lift up the parachute system and close the riser covers. The main risers must be between the two flaps.



Closing the container:

The closed riser cover.



Folding the pilotchute:

There must be no twists in the bridle.



Folding the pilotchute:

Fold the pilotchute into half.





Folding the pilotchute:

Fold back the border of the pilotchute. The pilotchute should be in the same length as the elastic pocket at the bottom of the container. Fold the bridle onto the pilotchute in the middle.



Folding the pilotchute:

Fold the right half onto the left half to cover the folded bridle.



Folding the pilotchute:

Roll into the left half.



Folding the pilotchute:

The complet folded pilotchute should fit into the elastic pocket at the bottom of the container.





Folding the pilotchute:

Turn the parachute system on the left side.
Push the pilotchute into the elastic pocket at the bottom
of the container.



Folding the pilotchute:

The pilotchute must be complet inside the pocket only
the handle remains outside.
It never should come out themselves.



Endcheck:

When the packing is finished,
check all flaps if they are clo-
sed properly. Also all parts
and handles of the parachute
system.





11.1 Pullout - Main Parachute opening device

For the Omega Container-System we now describe the packing of the Pullout pilotchute.

S-Folde the bridle not twisted under flap no. 2
Check the kill-line if it is pulled out completely. If you are not shure, follow the instruction on page 7.

Fold the pilotchute in that the mesh fabric is inside.
This avoids damage to the mesh fabric.
The folded pilotchute should be oblong, that makes it easier to put it under flap no. 1 where the loop is located.





11.1 Pullout - Main Parachute opening device

Pull the loop thru flap no. 2.
No fabric should be between the flaps this avoids damages.

Attach the handle to the velcro fastener in the right corner of the main container.

Check the routing of the pin bridle it also should not be twisted.
The guiding grommet must face outside.
If you pack the grommet under a flap it can cause in a hard pull or a malfunction of the opening device.

Close flap no. 3





11.1 Pullout - Main Parachute opening device

While closing the flap no. 3 of the main container take care that the guiding grommet of the Pullout is not tucked under a flap.

Now flap no. 4 and close the container with the straight pin. Remove the pull up cord.

The pullout bridle from the pin to the handle must be pushed between flap no. 2 and 3. No bridle should stay outside.

Push pack the grommet gently and leave a small corner of it visible.

Close the last flap.





11.2 RSL, Reserve Static Line

We recommend RSL system only for student's. The length of the yellow cable of the cut a-way handle must be so adjusted that the side with the RSL hook will be released at last when the main will be cut away.

The different in the length must be 4 cm, max. 5 cm.

The RSL is connected with a small ring to the reserve cable between the reserve housing and the guiding ring on flap no. 6 of the reserve container.

Attached with velcro on the left sholder padding under the reserve risers.

The velcro must be covered completely by the RSL. Free velcro can damage the harness and/or the container.

The extra length of the RSL must be stowed in that small pocket under the big harness ring.

Fix the RSL connector to the ring at the main riser. Pull at the small red flag at the connector and the RSL is disconnected again.



12 Options Student Rig

**Additional parts for the Omega Student harness container:
Use only original spare parts!**

Omega spring loaded pilotchute, Freelift



Student Ripcord



RSL, line with connector



Packing tube for staticline jumps



Second release handle AFF



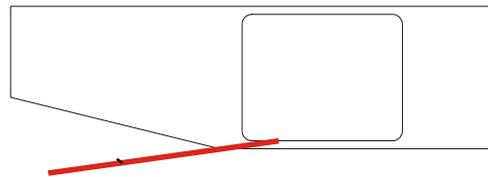
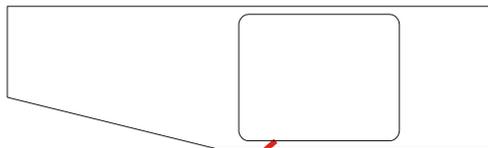


Zusatzrüstung Omega Schüler: Nur Originalbauteile vom Hersteller verwenden!

Staticline with hook, Velcro und soft pin

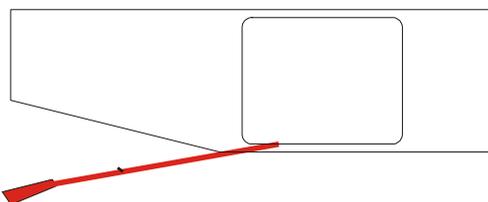
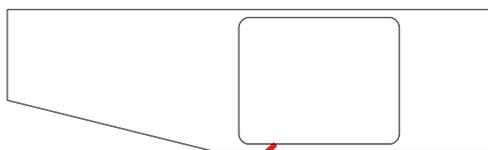


Velcro fastener for pilotchute assistance staticline.



Staticline jumps with spring loaded pilotchute and Velcro fastener at the staticline.
Less abrasion at the equipment.
Easy changeover from staticline to manual use without complet repacking of the parachute.

Attention! Changeover the Student System by a certified person only!



Staticline jumps with direct bag or packing tube system. The bag/tube remains with the staticline to the aircraft.
More abrasion at the equipment.
Changeover from staticline to manual use only with complet repacking of the parachute.

Attention! Changeover the Student System by a certified person only!

Extras at the Student Rig:



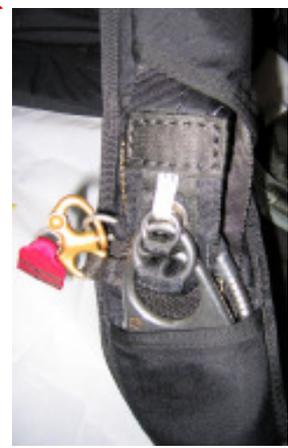
Cypres check window in collar:



Check window in the last Reserve flap:



Typ 8 main riser:



RSL connector:

2 Release handle AFF:



Hip ring adjustable:



Closing the main container:

See packing instruction Omega main container!

Folding the pilotchute bridle



Push in the spring loaded pilotchute



Push in the spring loaded pilotchute with fabric between the coils.



Full compressed pilotchute





Closing the main container:

Closing flap no. 1 and 2 with the pilotchute underneath



Close flap no. 3



Close flap no. 4



Close the container with the ripcord. Don't forget to route the ripcord through the ring of the second release handle!





Closing the main container with staticline:

Velcro fastener between staticline and spring loaded pilotchute.



Close the velcro fastener.



Closed velcro fastener.



Stow away the velcro fastener.



Stowed staticline with rubber bands used double.
Extra loop at the left side of the parachute system to connect the staticline hook.



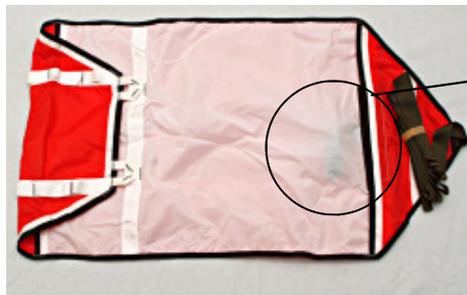


Use of the packing tube:

Pull the packing tube over the parachute on the ground.



Important is to fix the staticline attachment inside the tube.
Guide the attachment through the ring on the parachute and fix it with the rubber band.



Bring through the staticline.



Fix the attachment with the rubber band.



Close the packing tube with the velcro fastener.





Close the main container in use with packing tube and staticline:

The rest of the parachute in the packing tube must be S-folded inwards the tube.



S-Schlag inwards the tube.



Close the packing tube like a normal bag.



See page 32 and following.

See pictures closing the main container.

Staticline with soft pin and rubber band loop. This protects the aircraft from damages. Only use this soft pin with a rubber band loop.





Accelerated Free Fall (AFF) Education hand deploy at the bottom of con- tainer.

Differences to usually used spring loaded pilotchute systems:

At the Omega MOD (Main Override Device) the complet pouch will be released and lift up in free fall with an additional pilotchute. Like on a pull out system. More assistance by a jumpmaster is not necessary.

And the extra pilotchute can not drop into the lee of the student.

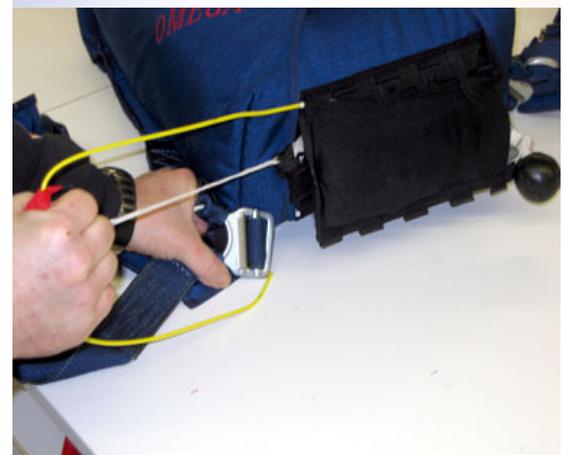
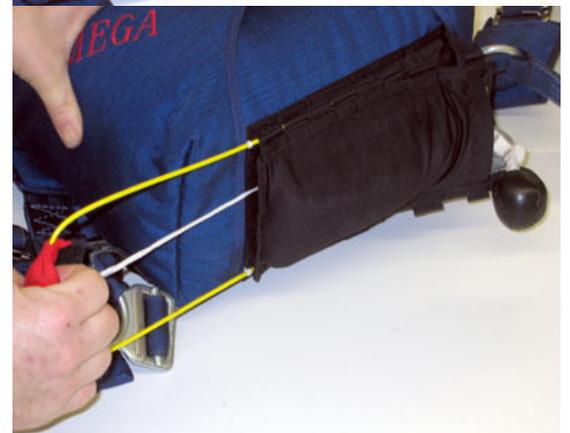
The cycle:

Pull of the handle out of the velcro fastener.

The yellow cables release the pouch from right to left.

At the white string is the additional pilotchute mounted and stowed in an extra pocket behind the pouch.

When the yellow cables pulled out completly the pilotchute appears and the pouch is separated from the container.





Fully pull out the pilotchute.

The special construction of the pilotchute gives him a small packing volume and is easy to put in that extra pocket behind the pouch.



When the additional pilotchute gets in the air, the bridle will be stretched and lift up the complete pouch.





When the bridle is fully stretched, the hand deploy will be pulled out the pouch. And starts the normal parachute opening.



The MOD does not have an attachment to the main parachute.

Parts list:

- Pilotchute
- Handle/cushion with locking cables.
- Bridle
- Hand deploy pouch





Mounting the Main Override Device (MOD):

We now describe the mounting of the Omega MOD.
To secure the functionality the MOD must be removed and mount again after 120 days.

Lay down the pouch with the velcro fastener to the left parallel to the bottom of the container.
The bridle to that additional pilotchute must be not twisted. Start with the lower cable in the white loop to close the MOD in a zipper manner.

Close the tape loops turn by turn.

Close the small white loop at the corner at last, bevor going upwards.





Mounting the MOD:

The cable will end in a wider loop at the right side of the pouch.

Fix the handle to the velcro that the bridle is not twisted.

Folding the pilotchute. The pilotchute does have 4 openings, added with binding tape, on the side. Put the edges of the openings on each other and fold the fabric inwards between two openings.



Mounting the MOD:

Then lay two openings on each other.



Proceed with the other openings in the same manner.



The pilotchute is flat and the fabric is folded inwards.





Mounting the MOD:

Fold the binding tape of the openings inwards to the middle.



Fold the fabric corners again on the middle.



Fold the pilotchute in the middle.





Mounting the MOD:

Lay down the bridle in S-folds on the pilotchute.

Push everything together in the extra pocket on the bottom of the container. Never lay the bridle around or inside the pilotchute.

Only the white line remain outside the pocket.

Push the white line in that line pocket behind the pilotchute pocket.



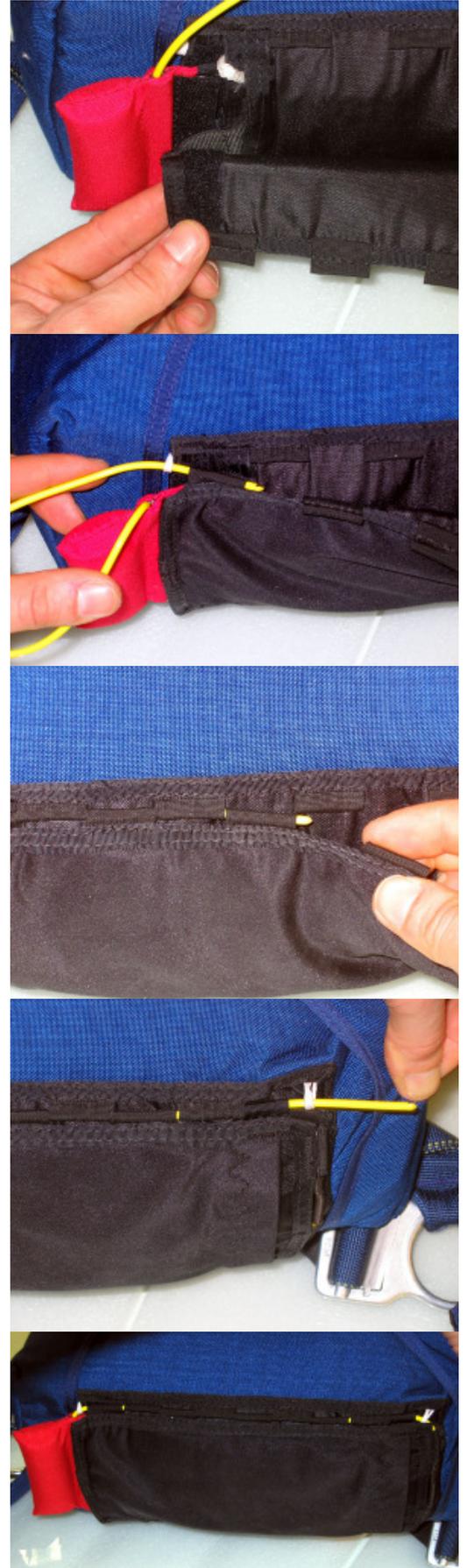


Mounting the MOD:

Close the velcro fastener.

Close the top with the cable in the same manner then the bottom.

Also the top cable ends in the wider loop on the right side of the pouch.

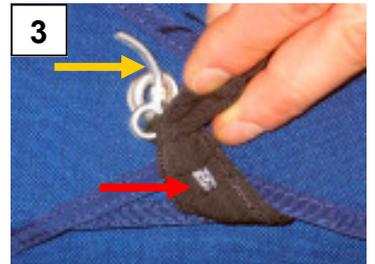
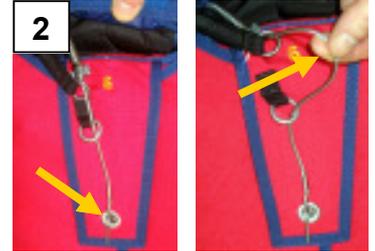




13 Gear check befor each jump

Bevor each jump the folowing points must be controlled!

1. Check once a day the reserve data card if the reserve pack job is still valid.
2. Position of the reserve pin and the free running of the wire.
3. Position of the main container pin. Marking of the kill-line. Routing of the bridle.
4. Hand deploy in the pouch.
5. All flaps.





13 Gear check befor each jump

Bevor each jump the folowing points must be controlled!

6. The 3 ring release system.
RSL routing and attachment.



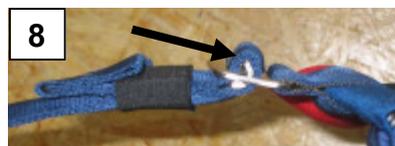
7. Attachment of the cut away and reserve handle.



8. The chest and leg strap buckles.
Routing of the straps in the buckles.
On student rigs the size adjustment and the fixing of the excess length of the main lift.



9. The AAD switched on and operable.



Doc.-No.: EH-O-Q01 Date: 15.01.2002 Revision: 4 Rev. date: 01.07.2005	Equipment Handbook Omega () / Quick () 	 PERFORMANCE VARIABLE <small>German Flight Technology</small>
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14 Putting on the Parachute System

The user puts the rig on over his shoulders like a backpack. The leg straps are brought up between the legs and the ends are fed through the buckles. The chest strap is also fastened with a buckle onto the main-lift web. The leg and chest straps should be pulled tight, so that the parachute fits the body snugly but without restricting movement. If the fit is too tight, the rig hinders the wearer; a fit that is too loose can lead to the uneven distribution of opening shock and possibly to the injury or endangerment of the wearer.

15 The manually Parachute activation

To activate the main or reserve parachute the jumper must be in a horizontal stable body position. To open the main parachute the jumper pulls with his right hand the handle of the pilotchute out of it's pocket at the bottom of the container. The pilotchute will be released at the straight arm into the airflow. Unstable activation of the main or reserve parachute can disturb the function of the parachutes. Should the main parachute opens with a malfunction, what can happen any time, the jumper has to practice:

Cut away the main parachute with constantly strong pull on the cut away handle located at the right main lift.

When the main parachute is cut away and fully released from the parachute system the jumper pulls constantly strong the reserve handle out of the attachment at the right main lift.

The metal cable which is fixed to the metal reserve handle will be pulled out the metal housing and the at the end mounted pin moves out the reserve loop.

The reserve flaps open up and release the spring loaded pilotchute. This pilotchute lift up in the airflow and is pulling with the bridle the reserve bag out. The lines slip out the line pocket get stretched and open the rubber band which keeps the bag close. Then the reserve parachute start to inflate. During the inflation the slider slides down the lines to the connector links.

16 Allowable Lifetime

Under the requirement that the parachute system is used in accordance with this equipment handbook the maximum life time is 15 years.

We are available at your convenience
to answer questions and provide further information at:

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 54634 Bitburg
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 Fax: 0049 6561 / 949681
 Email: info@miskyshop.com
 Web-Address: www.miskyshop.com